

**GENERAL NOTES**

**COMPRESSION SEAL:** MATERIAL REQUIREMENTS FOR THE COMPRESSION SEAL SHALL CONFORM TO ITEM 705.11. INSTALLATION SHALL FOLLOW THE MANUFACTURER'S RECOMMENDATIONS AND SHALL BE SUPERVISED BY HIM OR HIS DESIGNATED REPRESENTATIVE. THE LUBRICANT ADHESIVE USED SHALL BE AS RECOMMENDED BY THE MANUFACTURER.

**ARMOR STEEL COATING:** ALL STEEL PARTS OF THE JOINT ASSEMBLY SHALL BE ASTM A709, GRADE 36. THE FINISHED STEEL ASSEMBLY SHALL BE METALIZED. THE THICKNESS OF THE COATING SHALL BE 6 TO 8 MILS. THE WIRE USED FOR THE METALIZING SHALL CONSIST OF 85% ZINC AND 15% ALUMINUM. SURFACE PREPARATION AND APPLICATION SHALL CONFORM TO SSPC COATING SYSTEM GUIDE NO. 23.00, "GUIDE FOR THERMAL SPRAY METALLIC COATING SYSTEMS". AN OPAQUE SEAL COAT MEETING SECTION 7.2, SEALERS AND TOPCOATS; SHALL BE APPLIED TO METALIZED SURFACES THAT WILL BE IN CONTACT WITH THE CONCRETE.

**REPAIRS** SHALL BE MADE PRIOR TO THE INSTALLATION OF THE SEAL. METALIZED SURFACES DAMAGED DURING FABRICATION SHALL BE REPAIRED BY REBLASTING AND METALIZING AS PER SSPC GUIDE 23.00. METALIZED SURFACES DAMAGED DURING SHIPMENT OR FIELD WELDING SHALL BE REPAIRED AS PER ASTM A 780-93a, ANNEX A1, REPAIR USING ZINC BASED ALLOYS. THIS FIELD PROCESS REQUIRES REMOVAL OF CONTAMINATES FROM THE SURFACE, PREHEATING THE SURFACE TO 600° F AND APPLICATION OF ZINC COATING BY EITHER RUBBING A PURE ZINC STICK OR SPRINKLING ZINC POWDER ON THE PREHEATED SURFACE. THE ZINC COATING THICKNESS SHALL BE THE SAME AS THAT SPECIFIED FOR THE METALIZING.

**TEMPORARY SUPPORTS** SHALL BE INSTALLED THAT ARE CAPABLE OF SUPPORTING SHIPPING AND ERECTION FORCES WITHOUT DAMAGE TO THE EXPANSION DEVICE. FABRICATOR DESIGNED AND INSTALLED TEMPORARY SUPPORTS SHALL BE CAPABLE OF ADJUSTMENT FOR SETTING THE EXPANSION DEVICE IN THE FIELD AND SHALL BE INSTALLED AT THE FABRICATION SHOP AFTER FABRICATION AND COATING IS COMPLETED.

**SPLICE OR JOINT IN COMPRESSION SEAL:** COMPRESSION SEALS FOR BRIDGE DECK JOINTS SHALL BE FURNISHED IN ONE CONTINUOUS PIECE UNLESS A SHOP FABRICATED SPLICE OR FIELD SPLICE IS APPROVED BY THE DIRECTOR.

**MEASUREMENT** FOR PAY PURPOSES SHALL BE BASED ON LINEAR FEET OF SEALED JOINT SYSTEM, MEASURED HORIZONTALLY ALONG THE JOINT CENTERLINE AND BETWEEN THE OUTER LIMITS OF THE FABRICATED JOINT, FURNISHED AND PLACED. THIS SHALL INCLUDE ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO COMPLETE THE JOINT IN PLACE, WHICH INCLUDES: THE JOINT ARMOR, ELASTOMERIC COMPRESSION SEAL, RETAINERS, ANCHORING DEVICES, TEMPORARY SUPPORTS AND THE END CROSSFRAME TOP GUSSET PLATES. PAYMENT WILL BE MADE PER LINEAR FEET FOR ITEM 516, "STRUCTURAL EXPANSION JOINTS, INCLUDING ELASTOMERIC COMPRESSION SEAL".

**CONSTRUCTION PROCEDURE**

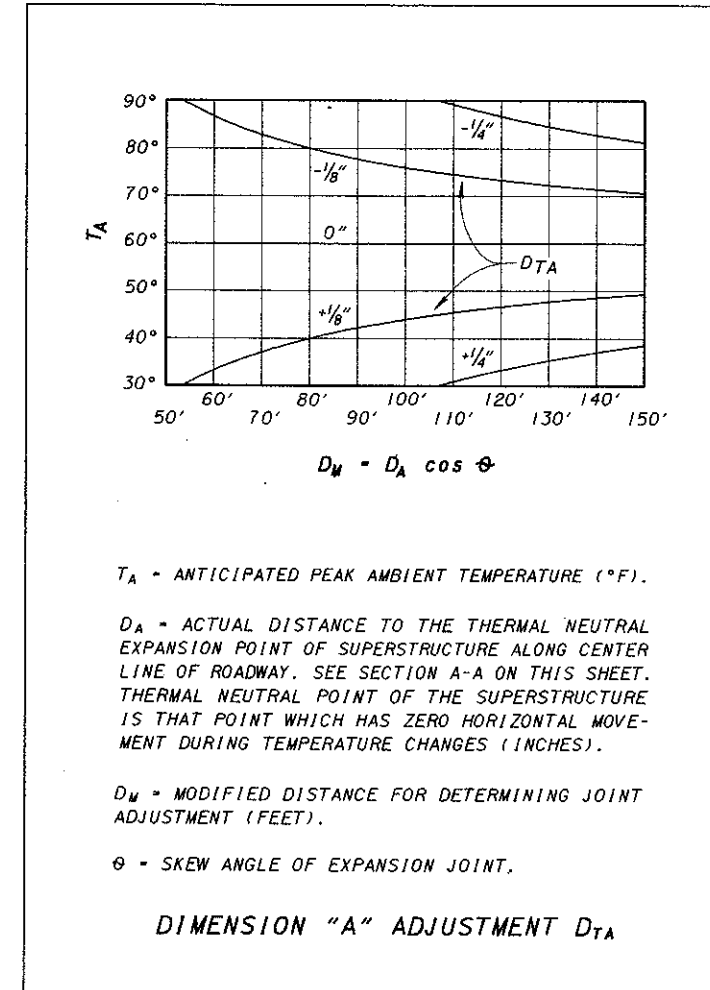
1. ABUTMENT BACKWALL CONCRETE SHALL NOT BE PLACED UNTIL AFTER SUPERSTRUCTURE CONCRETE IN THE SPAN ADJACENT TO THE ABUTMENT HAS BEEN PLACED.
2. PLACE BACKWALL CONCRETE DURING STABLE OR RISING AMBIENT TEMPERATURES AND CONCLUDE PLACEMENT AT OR IMMEDIATELY BEFORE THE DAY'S PEAK AMBIENT TEMPERATURE.
3. NOT MORE THAN FOUR HOURS PRIOR TO THE DAY'S PEAK AMBIENT TEMPERATURE, SET ABUTMENT EXPANSION JOINT WIDTH TO DIMENSION "A" WHICH SHALL BE DETERMINED AS FOLLOWS:  
 $A = 2\frac{1}{4} \pm D_{TA}$ , WHERE  
 A = JOINT WIDTH (INCHES) MEASURED NORMAL TO JOINT  
 $D_{TA}$  = ADJUSTMENT (INCHES) FOR A PEAK AMBIENT TEMPERATURE OTHER THAN 60° F (SEE CHART).
4. LOOSEN ANY TEMPORARY END DAM BOLTS AFTER INITIAL SET OF CONCRETE, PREFERABLY NOT LATER THAN TWO HOURS AFTER CONCLUSION OF CONCRETE PLACEMENT.

**NOTES TO DESIGNER**

**DESIGN LIMITS:** GENERALLY,  $\phi$  NOT GREATER THAN 15°;  $D_M$  (SEE CHART ON THIS SHEET) NOT LONGER THAN 150 FEET.

**BEAM ENDS** FOR STRUCTURES ON GRADES OVER 2% SHALL BE MADE VERTICAL.

**COMPRESSION SEAL** AT THE FIXED ABUTMENT SHALL BE AS SHOWN WHERE DIMENSION "A" = 2½" AT ANY AMBIENT TEMPERATURE.



DESIGN AGENCY BUREAU OF BRIDGES AND STRUCTURAL DESIGN	STATE OF OHIO DEPARTMENT OF TRANSPORTATION Robert B. Taylor ENGINEER OF BRIDGES	DATE 9-1-81	REVISED WTL/MPB	EXJ-2-81
			CHECKED J/S/R/L/D	
			DESIGNED MPB/A/J/M	DRAWN A/J/M
		REVISIONS 4-2-84 2-14-97		
STANDARD COMPRESSION SEAL EXPANSION JOINTS AT ABUTMENTS FOR STEEL STRINGER STRUCTURES				
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